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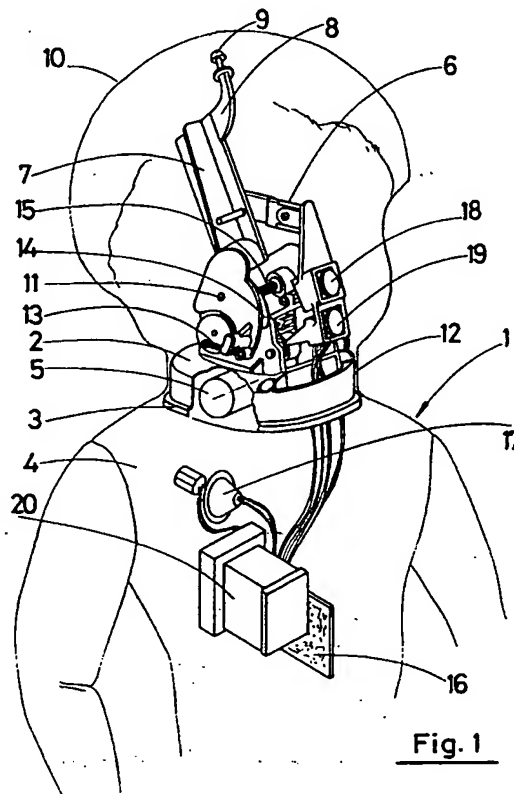
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EUROPEAN PATENT APPLICATION(21) Application number: **91500151.5**(51) Int. Cl.⁵: **A63H 3/00**(22) Date of filing: **30.12.91**(30) Priority: **19.08.91 ES 9102607 U****E-03440 Ibi (Alicante)(ES)**(43) Date of publication of application:
24.02.93 Bulletin 93/08(72) Inventor: **Rodriguez Ferre, José Manuel**
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Patentanwalt Maximilianstrasse 58
W-8000 München 22 (DE)(54) **Sneezing doll.**

(57) A doll (1) comprising a trunk (4) of hard moulded material and head (10) of a soft material is provided with an electromechanical unit contained within a frame (2) situated within the neck (12) of the doll. The electromechanical unit includes a motor (5) which operates through a transmission to rotate the head backwards. A release mechanism allows the sudden spring return of the head to its initial position in a manner simulating sneezing. The movements are accompanied by appropriate sounds produced by an acoustic arrangement (17).

**Fig. 1****EP 0 528 092 A1**

The present invention refers to an improved doll.

In the present invention a doll toy was designed of the type externally adopting the configuration of a little boy or girl comprising an anatomical trunk of hard moulded material, pieces conforming the extremities and head associated thereto and obtained with soft moulded material, specially that piece compounding the head and the neck portion, being of remarkably flexible material so that deformation and subsequent retrieval is provided therewith in the operations pretending to be unintentional snuffles such as sneezing, and synchronised with the release of sounds and the pressing of specific points also being allowed so that respective sensors internal to said head piece can be activated without resorting to perforate the head component material. The existence of holes or openings in the doll's mouth and other parts for activating the incorporated sensors are therefore no longer required.

The doll includes within its head an electromechanical unit comprising a piece of hard moulded material interlockingly anchored to the trunk. Said piece makes up a frame for an electromotor and a support for the shafts of several engaged cogwheels and pinions setting up the power transmission organs for the operation of a pivoted parallelogram, one of which sides is upwardly extended, the base of the doll's head having a fastening thereon.

The toy includes an electronic circuit fed by a battery set connected to an on-off switch operated by means of a pushbutton preferably located at the doll's back. When the doll is connected the electromechanical unit performs a rearwardly slow rotation of the head and the sudden return to the original position using a call spring. The motion is synchronised with a sound pretending to be the one produced when sneezing, this sound being heard through an acoustic arrangement and is released consequently to the connection of the electronic circuit and other sounds like sentences are followed up being repeated separately and regulated by said electronic circuit, the sounds changing when the internal sensors located behind the doll's nose and mouth are pressed to return to the original sound and motion.

To facilitate the disclosure, the present description is accompanied by drawing sheets wherein a preferred embodiment cited only by way of example is shown.

In the drawings;

Figure 1 is a front view of the doll showing the internal electromechanical mechanism.

Figures 2 and 3 are respective elevation side views of the doll's head in the resting and rearwardly tilted positions.

Figure 4 is an external view of the doll's back.

Returning to the figures, in the embodiment is shown a doll generally designated as -1- externally adopting the required shape and including further internally an electromechanical unit contained in a frame -2- interlocked with its basic annular rim -3- to the piece -4- configuring the doll's trunk.

The frame -2- includes an electromotor -5- which through a transmission made up with a pulley and a belt and a cogwheels and pinions based reducing mechanism is converting the power of the driving shaft for operating a specially pivoted parallelogram -6-, one of which sides is externally extended as an arm -7- provided with an arcuated tailpiece -8- with a fastening -9- to be interlockingly anchored to the base of the doll's head -10-.

The arm -7- is pivoting on its shaft -11- promoting the rearwardly rotation of the head -20- as shown in figure 3, and cooperating with the flexible material making up the neck -12-. The mechanism includes a releasing arrangement allowing the sudden return of the parallelogram -6- to its initial resting position when being required by a spring -13-.

The arm -7- is configuring a cam -14- operating a flexible contact -15- connected to the electronic circuit -16- and from this very moment a sound similar to sneezing is heard synchronised with the previously said head motion and subsequently a plurality of sounds like sentences are heard, their release regulated by said circuit, all sounds heard through an acoustic arrangement -17-.

Upon pressing a sensor -18- located at the parallelogram -6- in a coinciding position with the doll's nose, the released sounds are changed and replaced by other similar sentences and sounds like those produced when blowing a nose. By successively pressing the sensor -18- the sounds are again being changed.

A second sensor -19- located coinciding with the doll's mouth can be activated changing the sentences released into other new ones repeated until the cycle is again started with the motion of the head and the sneezing sound.

Said sensors -18-19- are directly pressed from the outside because of the flexibility of the material compounding the doll's head, without requiring the help of any hole or opening whatever.

At the back of the doll -1- is provided a cavity -20- with a cover -21- containing the power batteries.

The electronic circuit -16- is connected to an on-off switch -22- located at the doll's back.

Claims

1. Improved doll, of the type externally adopting the configuration of a little boy or girl compris-

ing a hard material frame associated to the trunk, in the frame being engaged the pieces compounding the extremities and head obtained with flexible material and including inside an electronic circuit connected to a switch preferably located at the back's external side and to a battery set commanding it, the battery set being placed within an enclosure located at the doll's back area and closed with an adjustable cover, essentially characterized in that it comprises inside the head piece, a frame interlockingly anchored in the opening upwardly exhibited by the doll's trunk, the flexible neck integrated in said head being engaged thereto, and the frame comprising an electromotor commanded by the electronic circuit, the motor power driving shaft provided as connected to a pulley via a transmission belt and the pulley with a reducing mechanism made up with cogwheels and pinions, the operation of the pivoted parallelogram linked to the frame performing therethrough, one of the sides of the frame upwardly extended conforming an arm topped with an arcuated side tailpiece anchored by its distal end to the doll's head base, and a rearwardly rocking motion provided therewith and cooperating with the flexibility of the neck joining the head to the trunk, the reducing mechanism including a trigger to power the sudden return of the pivoted parallelogram to its original position with the operation of a call spring, the doll's head making then faces similar to those produced when sneezing.

2. Improved doll, according to claim 1, characterized in that the pivoted parallelogram is configured in one of its sides a cam operatively arranged to perform on a flexible contact connected to the electronic circuit, this operation originating the release of sounds similar to the ones produced when sneezing and in the way of sentences collected by the acoustic arrangement reproducing them, being audible from the outside via a succession of openings existing at the doll's trunk.
3. Improved doll according to claims 1 and 2, characterized in that the pivoted parallelogram comprises two sensors respectively located at positions coinciding with the doll's nose and mouth, the sensors being connected to the electronic circuit and being susceptible to be activated by manual pressing from the outside because of the flexible material uninterrupted and integrated on the head piece, said activation provoking the release of sounds such as the noises similar to those produced by snots

and also in the way of sentences.

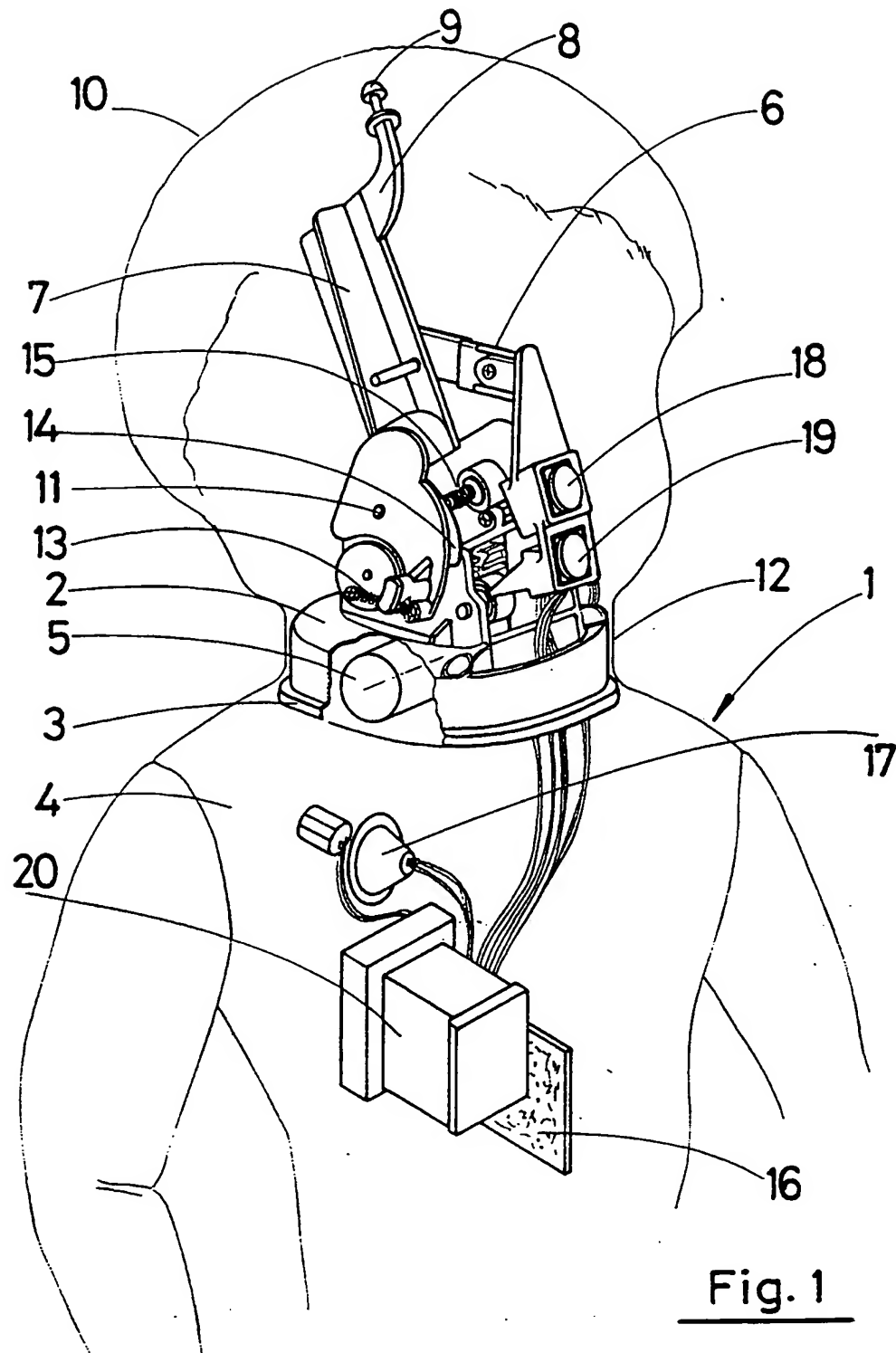


Fig. 1

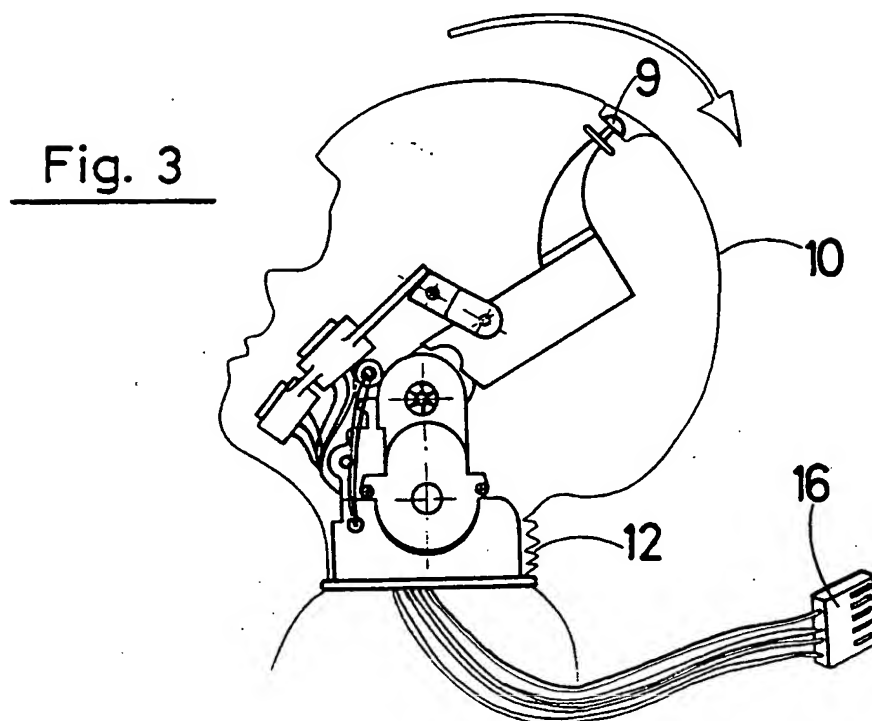
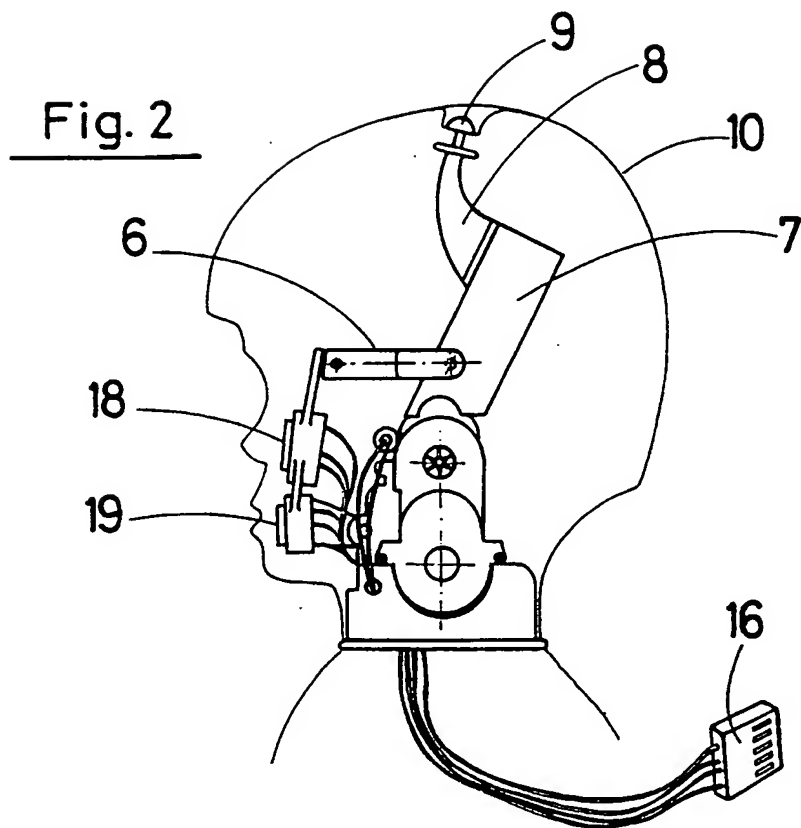
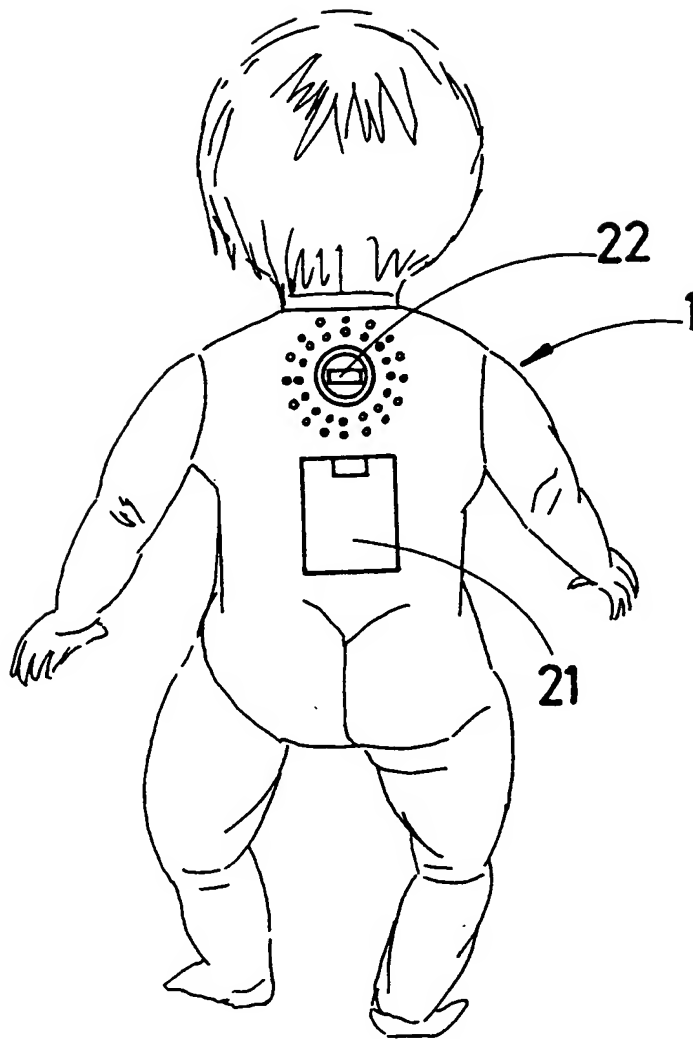


Fig. 4





European Patent
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EUROPEAN SEARCH REPORT

Application Number

EP 91 50 0151

DOCUMENTS CONSIDERED TO BE RELEVANT										
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim								
A	US-A-4 003 157 (GUERRERO) ---									
A	US-A-3 996 695 (SAPKUS) ---									
A	GB-A-2 060 416 (SHIBA CO. LTD) ---									
A	US-A-3 303 605 (HENRY) -----									
The present search report has been drawn up for all claims										
Place of search THE HAGUE		Date of completion of the search 19 NOVEMBER 1992								
Examiner CLARKSON P.										
<table border="0"><tr><td>CATEGORY OF CITED DOCUMENTS</td><td>CLASSIFICATION OF THE APPLICATION (Int. CL.5)</td></tr><tr><td>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</td><td>A63H3/00</td></tr><tr><td></td><td>TECHNICAL FIELDS SEARCHED (Int. CL.5)</td></tr><tr><td></td><td>A63H</td></tr></table>			CATEGORY OF CITED DOCUMENTS	CLASSIFICATION OF THE APPLICATION (Int. CL.5)	X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document	A63H3/00		TECHNICAL FIELDS SEARCHED (Int. CL.5)		A63H
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T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons
* : member of the same patent family, corresponding document